EOSDIS IV&V
Monthly Program Status Report
For the Period 4/1/95 to 4/30/95

(Deliverable 0201.10)

May 15, 1995

Prepared by:

INTERMETRICS
6301 Ivy Lane
Greenbelt, MD 20770

Prepared for:

NASA Goddard Space Flight Center
Code 505
Greenbelt, MD 20770

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PREPARED BY:

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Rich Saad
Task 2 Leader

RECEIVED BY:

_____

Lee LaCoste
Document Log Manager

APPROVED BY:

_____

Ron Cariola
Program Manager

INTERMETRICS
6301 Ivy Lane

Greenbelt, MD 20770

Table of Contents

1. PROGRAMMATIC INFORMATION

1.1 IV&V Project Organization Chart

Exhibit 1-1 illustrates the current organizational structure of the EOSDIS IV&V team. For each lead position, we have identified company affiliation, geographic location, phone number, and task assignment. Also included is the number of full time equivalent engineers assigned to each technical task.

1.2 Overview of Work Being Performed

a) List of Active Task Assignments

- Task 1: IV&V Program Management
- Task 2: Facilities, Operations, and Program Reporting
- Task 4: IV&V Infrastructure and Tool Development
- Task 5: Requirements Analysis and Traceability
- Task 6: ECS Development Analysis
- Task 9: Key Interface Analysis
- Task 10: EOSDIS Integration and Certification Plan
- Task 11: System Integration and Test (SI&T) Planning and Execution
- Task 12: EDOS IV&V
- Task 13: IV&V Special Studies

b) Key Recent Accomplishments

- **Programmatic**

  - Participated in Executive Council Review held on April 28, 1995.

  - Provided ESDIS management with CDR success criteria, as requested.

  - Developed Task Summary Grid, identifying current task activities, as well as value-added benefits and priority of importance to the overall EOSDIS program.

  - Developed draft inputs to task SOWs for the upcoming contract year. Currently planning staffing and budgetary needs based on expected level of performance.

  - Formally began work on Task 11 based on an approved Statement of Work issued on April 17, 1995.

Exhibit 1-1: Org Chart (Landscape)

- Under Task 5, initiated some requirements analysis work to be performed at the IV&V Software Facility in Fairmont, WV. This action is consistent with the goal of enabling the WV facility to participate more broadly in an in-line IV&V role.

- Attended TSDIS Preliminary Design Review (PDR) as well as initial TRMM PDR. Also, for the EDOS Project, attended the System Requirements Review (SRR) and Operational Prototype Requirements Review.

- Began occupying IV&V desk space at HAIS to aid communications between the IV&V team and HAIS during the ECS development phase.

- **Technical**

  - Under Task 4, submitted a draft of the ISE Software Requirements Document. Also demonstrated the McCabe Toolset to NASA management personnel in West Virginia, focusing on the tool's ability to provide Object Oriented metrics. These metrics could be used to assess the maintainability and quality of ECS design and implementation.

  - Under Task 5, currently reworking the ECS requirements analysis to reflect the changes in requirements and traceability that have occurred since the IV&V preliminary report issued in October 1994. Also, began developing a BONeS simulation model to study ECS disk-to-disk transfer.

  - Under Task 6, performed beta test on preliminary guidelines and evaluation forms/procedures for Object Oriented (OO) development analysis. Also, began IR-1 and Release A design analysis.

  - Under Task 9, populated the Interface Analysis Database (IADB) and data dictionary with dataflow information from the 11 available IRDs. Also, prepared a TAM for the TBDs found during IRD and ICD analysis.

  - Under Task 10, reworked task statement and reviewed test tool development needs. Also, initiated the rework of the EOSDIS Integration, Test, and Validation Plan (EITVP) - formerly known as the EICP.

  - Under Task 11, finalized new task statement and developed a detailed SI&T schedule, analyzing activity interdependencies.

  - Under Task 12, generated 23 RIDs after attending the EDOS System Requirements Review (SRR) and the EDOS Operational Prototype Requirements Review. Also, continued technical integrity evaluation of the EDOS F&PRs and F&PSs.

- Under Task 13, continued developing Version 0 test scenarios (approximately 50 scenarios executed to date). Also, acquired a file of V0 timestamp data and started reviewing format/content to develop a parser.

c) New/Proposed Task Assignments

- Funding for the EDOS IV&V task (i.e., Task 12) ends on May 31, 1995. At that time, the EDOS Project Office will relinquish control of the task to the SMO. During the next contract year, we suggest that the SMO keep Task 12 as a separate and distinct task, rather than folding its activities across the other existing tasks. Maintaining a separate task will ensure a clearer focus on the EDOS system component and promote greater accountability.

d) Follow-up on Technical Action Items from March 16 PSR

1) Have Chris Daly of HAIS review the estimated decrease in future costs of mass storage in order to reconcile the HAIS estimate (i.e., 5% decrease per year) with the industry standard estimate (i.e., 35% decrease per year).
Action: *Debbie Izumi, Intermetrics team*
Status: Open.

2) Develop a user-friendly interface for the HAIS interactive cost model.
Action: *Chris Daly, HAIS*
Status: The IV&V team generated a TAM on April 27 identifying some of the short-comings of the user interface. This TAM was delivered to Chris Daly for his review.

3) Obtain the DID on the ICDs and review its contents in order to better gauge the current state of the existing ICDs.
Action: *Pete VanWie, Intermetrics team*
Status: The IV&V team reviewed the DID and generated a TAM on May 8 outlining a more detailed format and content for the ICDs.

4) For dependency planning purposes, provide the ESDIS Project with a list of the items needed by the IV&V team as well as the time frame in which those items must be received in order for IV&V to accomplish its work.
Action: *Gordon Henley, Intermetrics team*
Status: Currently being evaluated.

5) Determine the type of high level requirements analysis data desired by the ESDIS Project and provide this data. Speak with Ellen Herring and/or Janice Smith on this issue.
Action: *Debbie Izumi, Intermetrics team*

Status: An Executive Summary is now being included as part of each Requirements Analysis TAR.

6) Add the E-mail addresses of individual IV&V team members to the IV&V HomePage.
Action: *Rich Saad, Intermetrics team*
Status: Done.

7) Provide metrics to the Interface Control Working Group (ICWG) on the number of TBDs that appear within the IRDs.
Action: *Pete VanWie, Intermetrics team*
Status: The IV&V team generated a TAM documenting the number of TBDs that appeared within the reviewed IRDs. This TAM will be submitted in early May.

8) Provide the IV&V team with the specific definitions used for the different levels of requirements criticality (i.e., Mission Critical, Essential, Fulfillment).
Action: *Danny DiVito, NASA*
Status: Open.

9) Conduct a configuration audit to assess the validity of the criticality classifications currently being assigned to the ECS requirements across releases. This audit should be completed within two weeks after HAIS makes its RTM database available.
Action: *Debbie Izumi, Intermetrics team*
Status: Once the RTM database is received from HAIS and the criticality definitions are received from NASA (see Item 8 above), the IV&V team will prepare a criticality assessment TAM for IR-1.

1.3 Overview of Schedule Status

Exhibit 1-2 presents the latest, high level milestone chart (i.e., dated May 5, 1995) for all technical tasks assigned on the EOSDIS IV&V contract. In conjunction with this exhibit, Exhibit 1-3 lists in chronological order all deliverables/milestones associated with the contract and the status of each.

1.4 Performance Assurance Activities/Issues

- Advanced training for the Requirements Traceability Management (RTM) tool is scheduled to begin on May 8, 1995. This training will further advance the IV&V team's ability to use RTM for ECS and EDOS requirements analysis.

- Lotus Notes training for Greenbelt staff is currently being planned. This training is intended to increase the IV&V team's use of the groupware tool and expose them to

applications which have been specifically developed to improve the EOSDIS IV&V interface (e.g., the IDHS).

Exhibit 1-2: Milestone Chart (Landscape)

Date Due	Milestone/ Deliverable	Task #	Status*	Comments
7/8/94	ECS Release A SDR IV&V RIDs	5	C	Accomplished within 17 days of contract award.
7/8/94	SDR IRD RID Package	9	C	Accomplished within 17 days of contract award.
7/15/94	M1 Requirements and Architecture	4	C	Submitted on time.
8/16/94	IV&V Management Plan - Draft	3	C	Submitted ahead of schedule.
8/16/94	M1 Initial Tool Architecture Review	4	C	Conducted ahead of schedule.
8/30/94	ISE System Requirements - Draft	4	C	Submitted on time.
10/7/94	EOSDIS Modeling Assessment Report (User Demographics)	5	C	Submitted on time.
10/17/94	ISVVP - Initial	3	C	Submitted on 10/18/94.
10/17/94	Certification Criteria Determination Report - Initial	10	C	Submitted on time.
10/18/94	M1 Demonstration	4	C	Conducted on schedule.
10/28/94	Preliminary ECS Rqmts Analysis Report	5	C	Submitted on time.
10/31/94	ISE System Requirements - Update	4	C	Submitted on time.
10/31/94	Version 0 User Assessment	9	C	Submitted on time.
11/30/94	CUP Study Report (Studies: 1-4, 6)	12	C	Submitted on time.
12/1/94	ECS-TRMM IRD Pilot TAR	9	C	Submitted on time.
12/16/94	IV&V Management Plan - Final	3	C	Ahead of schedule.
12/16/94	ISVVP - Update	3	C	Submitted on time.
12/16/94	ISE System Architecture - Draft	4	C	Submitted on time.
12/16/94	Performance Dependency Analysis Tool Requirements	10	C	Submitted one month ahead of schedule.
12/16/94	EICP - Initial	10	C	Submitted ahead of schedule.
12/23/94	ECS FOS PDR IV&V RIDs	5, 9	C	Submitted ahead of schedule.
12/30/94	Initial ARDB	5	C	Initial database development complete. Updates needed after requirements stabilize.
12/30/94	EOSDIS Modeling Assessment Report	5	C	Data not available to complete the analysis on 12/30/94. Needed Version 2 of BONeS Model from HAIS. New targeted date to complete this deliverable was set for 2/10/95. Based on the revised target date, the report was submitted on time.
12/30/94	Baseline Rqmts. Analysis Report	12	C	Submitted on time.
1/16/95	ISE System Architecture Review	4	C	Given on 1/12/94, ahead of planned schedule.
1/27/95	ECS CSMS PDR IV&V RIDs	5, 9	C	Submitted on time.
1/31/95	ISE System Architecture - Update	4	C	Submitted on time.
1/31/95	ISE Development Plan - Draft	4	C	Submitted on time.
1/31/95	CUP Study Report (Studies: 5, 7-10)	12	C	Submitted on time.

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled
Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables

Date Due	Milestone/ Deliverable	Task #	Status*	Comments
2/24/95	**ECS SDPS PDR IV&V RIDs**	**5, 9**	**C**	**Submitted on time.**
2/28/95	**M1 Revision 2 (M1R2) Demonstration**	**4**	**C**	**Conducted on time**
2/28/95	**ISE Development Plan - Final**	**4**	**C**	**Submitted on time.**
2/28/95	**EOSDIS Test System (ETS) Memorandum**	**13**	**C**	**Submitted on time.**
3/1/95	**ECS PDR Wrap-up IV&V RIDs**	**5, 9**	**C**	**Submitted on time.**
3/1/95	**Initial ARDB for IRD Requirements**	**9**	**C**	**Submitted on time.**
3/16/95	ECS IR-1 Requirements Analysis Report	5	D	Delayed until HAIS "baseline" RTM data is made available. Currently proposed for delivery on 10/31/95.
3/16/95	**EICP - Interim**	**10**	**CX**	**Task rescoped. EITVP to replace EICP.**
4/3/95	**IR-1 IRVVP (Final)**	**6**	**C**	**Submitted ahead of schedule on 3/30/95.**
4/3/95	**TRMM IRVVP (Preliminary)**	**6**	**C**	**Submitted ahead of schedule on 3/30/95.**
4/17/95	**ISE Element Requirements - Draft**	**4**	**C**	**Submitted on time.**
4/28/95	**SRR RIDs**	**12**	**C**	**Submitted ahead of schedule on 4/24/95.**
5/15/95	EOSDIS Integration, Test, and Validation Plan (EITVP)	10	IP	On schedule.
5/31/95	M1 Revision 3 (M1R3) Demonstration	4	IP	For Government convenience, actual demo is being rescheduled for early June.
5/31/95	IR-1 Design Evaluation TAR (Final)	6	D	Delayed until after CDR. A series of TAMs will be used for rapid feedback on design issues: SDPS TAM - 5/95; CSMS TAM - 6/95; SCDO TAM - 7/95.
5/31/95	TRMM Design Evaluation TAR (Preliminary)	6	D	Delayed until after CDR. A series of TAMs will be used for rapid feedback on design issues. See above.
5/31/95	EDOS Acceptance Test Plan - Preliminary	12	CX	Task 12 is being replanned. Responsibility for Acceptance Test Plan has been transferred to NMOS.
6/1/95	EGS I&T Plan (Draft)	11	IP	On schedule.

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled
Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables (Continued)

Date Due	Milestone/ Deliverable	Task #	Status*	Comments
7/14/95	ISE Element Software Design - Draft	4	O	
7/14/95	ECS Requirements Analysis Report (Final)	5	O	
7/14/95	EGS I&T Plan (Final)	11	O	
7/28/95	ISE Element Requirements - Update	4	O	
7/31/95	ECS Release A CDR IV&V RIDs	5	O	
7/31/95	ECS AM-1 Rel IRD IV&V RIDs	6	O	
7/31/95	IR-1 Software Development Evaluation TAR (Final)	6	O	
8/1/95	Component Acceptance Master Test Plan	10	O	
8/7/95	AM-1 IRVVP - Preliminary	6	O	
8/16/95	ISE System Design Review	4	O	
8/31/95	ECS TRMM Rel CDR IV&V RIDs	6	O	
8/31/95	IR-1 Final Test Plans/Procedures Eval TAR	6	O	
9/1/95	EOSDIS Test Version I&T Plan/Procedures (Part 1)	11	O	
9/15/95	ETS CDR RIDs	5	O	
9/15/95	AM-1 Release Preliminary Design Evaluation TAR	6	O	
9/29/95	EOSDIS Test Version Component Test Plan/Procedures (Part 1)	10	O	
9/29/95	V0 System Performance Phase II TAR	13	O	
10/16/95	TRMM Final Design Evaluation TAR	6	O	
11/30/95	ISE Element User's Guide - Draft	4	O	
11/30/95	TRMM IRVVP - Final	6	O	
12/1/95	EOSDIS Test Version I&T Plan/Procedures (Part 2)	11	O	
12/15/95	ISE Element Software Design - Update	4	O	
12/29/95	IR-1 Final Test Results Evaluation TAR	6	O	
2/1/96	EGS Mission Certification Master Test Plan	10	O	
2/16/96	ISE Element Software Code - Initial	4	O	
2/16/96	ISE Element Version Description - Initial	4	O	
2/16/96	ISE Release 1 Demonstration	4	O	
3/1/96	EGS Version 1 I&T Plan/Procedures (Part 1)	11	O	
5/15/96	*ECS Release A IV&V Test Plan*	*8*	*O*	
5/31/96	ISE Element User's Guide - Update	4	O	
6/14/96	ISE Element Software Code - Update	4	O	
6/14/96	ISE Element Version Description - Update	4	O	
6/14/96	ISE Release 2 Demonstration	4	O	
6/28/96	TRMM Rel Software Development Evaluation TAR (Preliminary)	6	O	

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled

Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables (Continued)

Date Due	Milestone/ Deliverable	Task #	Status*	Comments
8/15/96	*ECS Release A Test Scenario Operations*	*8*	*O*	
9/16/96	*ECS Release A IV&V Test Procedures (Initial)*	*8*	*O*	
11/15/96	*ECS Release A IV&V Test Procedures (Update)*	*8*	*O*	
12/16/96	*ECS Release A IV&V Test Start*	*8*	*O*	
2/17/97	*ECS Release A IV&V Test Analysis Report*	*8*	*O*	
Test Completion + 7 Days	EGS I&T Flash Summary Test Report	11	O	
Test Completion + 45 Days	EGS I&T Final Test Report	11	O	

* C = Completed, IP = In Process, O = Open, D = Delayed, CX = Canceled
Note: *Italics* indicates tasks that are not yet activated.

EXHIBIT 1-3: Status of Milestones/Deliverables (Continued)

- Selected individuals are participating in a self-study program on Novell networks. This training will lead to Certified Network Engineer (CNE) status.

1.5 Major Short Term Activities Planned

- **Program-wide Activities**

  - Prepare for next Monthly Findings Meeting with ESDIS management scheduled for May 11, 1995.

  - Begin participating in DAAC "Roadshows", communicating the philosophy/approach of IV&V, as well as DAAC-specific issues regarding roles, responsibilities, and interfaces.

  - Work with Code 505 to review the scope of the current IV&V tasks and replan for upcoming contract year.

- Work with ESDIS Project Management to promote a common IV&V methodology across all EOSDIS system components (i.e., ECS, EDOS, and ECOM) to the extent possible.

- Address network connectivity issues between the Greenbelt office and GSFC, and consider justification for a T1 line.

- **Task-specific Activities**

  - For Task 4, prepare for the Milestone 1 Release 3 (M1R3) Demonstration scheduled for early June. Also, achieve connectivity between the Lotus Notes servers in Greenbelt and Fairmont.

  - For Task 5, continue ECS requirements analysis as well as the modeling analyses. Also, determine the rationale used for describing requirements criticality ratings.

  - For Task 6, issue Technical Analysis Memorandum (TAM) on the SDPS development. Also, become better integrated with the ECS contractor by fully utilizing the IV&V office space at HAIS.

  - For Task 9, continue populating the IADB with dataflow information from supporting documents. Also, begin writing the Technical Analysis Report (TAR) for the interfaces contained in IR-1.

  - For Task 10, complete draft version of EITVP. Also, complete task statement, planning for next phase of activity.

  - For Task 11, support DAAC "Roadshow" by providing I&T personnel cognizant of schedule and integration issues. Also, develop annotated outline of SI&T plan.

  - For Task 12, begin reviewing Acceptance Test criteria and test planning material.

  - For Task 13, coordinate with the DAACs to collect system utilization data using UNIX utilities, and begin performance characterization testing. Also, install X-Runner at the Intermetrics Greenbelt office as well as the GSFC V0 DAAC.

1.6 Key Long Range Plans/Schedules

The IV&V team will support the activities and milestones identified in Exhibit 1-2. Emphasis will be placed on those activities that are on the critical path to support the on-time launch of the

spacecraft. Such activities include supporting System Integration, performing Interface and Integration Testing, and conducting System Certification.

In addition, the IV&V team realizes the critical importance of a successful ECS Interim Release 1 (IR-1) and Release A to the future of the EOSDIS program. We will devote significant effort under Task 6 (i.e., ECS Development Analysis) to ensure that IR-1 and Release A are perceived as a success within both the ESDIS and user communities. In concert with these goals, the IV&V team has shifted its focus from requirements analysis to development analysis. Additionally, we will be preparing and/or reviewing Acceptance Test plans and procedures, and will continue to provide increasing support to integration and test activities.

2. TECHNICAL INFORMATION

2.1 Task # 4: IV&V Infrastructure and Tool Development

a) Task Accomplishments

- Submitted a draft of the ISE Software Requirements Document (Deliverable Item 0408) on April 17, 1995.

- Incorporated changes to the Issue/Discrepancy Handling System (IDHS) based on task lead inputs, and updated IDHS User Guide. This tool will be used for submitting Review Item Discrepancies (RIDs) and tracking any issues related to the upcoming CDR. It includes automated RID mailing capabilities to CSC.

- Started preparing Lotus Notes training material for on-site training of Greenbelt staff. Defined plan for implementing Lotus Notes replication between Fairmont and Greenbelt.

- Demonstrated the McCabe Toolset to NASA/WVU Software IV&V Facility management personnel, focusing on the Object Oriented metrics provided by the tool. These metrics could provide one basis for assessing the maintainability and quality of ECS design and implementation. The IV&V Facility is considering procuring two copies of this toolset.

- Scheduled Software Through Pictures (StP) Object Modeling Tool (OMT) demonstration for May 17, 1995, and obtained evaluation copies of the MINITAB statistical analysis package, McCabe Toolset, and PVCS Configuration Management tool.

- Reviewed the Test Data Management (TDM) Plan draft dated March 15, 1995, and delineated differences in functionality between this tool (being developed for Code 505 under the SEAS Contract) and the Test Management Database (TMDB) being developed by Task 4 IV&V personnel. Continued TMDB prototyping activities.

- Continued Interface Analysis Database (IADB) development and enhancement to accommodate end user requests.

b) Issues/Concerns

- We believe that the 56KB line connecting our Greenbelt office to GSFC will not be sufficient to support the data access / data transfer needs of the IV&V team in the long term. As some Task 5 activities transition to Fairmont, increased access to the Automated Requirements Database (ARDB) in Greenbelt will be necessary. In addition, once the TMDB is fully developed, test planning data will need to be

entered and accessed remotely to support Tasks 9 and 11. These and other growing needs present a strong case for upgrading to a T1 line.

We are in the process of collecting data on this issue and plan to provide a written justification for a T1 capability.

- The time associated with the GFE procurement process is having an impact on our infrastructure development schedule. Since we now have an approved procurement system, it would be helpful if we could be granted the authority to directly order any needed GFE items within a certain dollar threshold.

c) Subcontractor Performance

- CTA performance during this reporting period was very good. They were directly responsible for development gains realized in the IADB tool and are currently developing Lotus Notes user training materials for the planned on-site training at Greenbelt.

- EWA performance during this reporting period was very good. They supported system administration activities for the Fairmont facility and on-going TMDB analysis activities.

d) Planned Activities

- Prepare for the Milestone 1 Release 3 (M1R3) Demonstration, tentatively scheduled for early June in WV.

- Achieve connectivity between the Lotus Notes servers in Greenbelt and Fairmont. Implement Lotus Notes database replication plans.

- Perform Lotus Notes training in the Greenbelt office.

- Continue the TMDB analysis and prototyping. Connectivity to RTM/Oracle for extraction of RTM requirement information is planned.

- Continue enhancing the IADB application, and porting the ARDB to SQLWindows.

- Support program meetings and briefings as required.

2.2 Task # 5: Requirements Analysis and Traceability

a) Task Accomplishments

- Based on ESDIS Project Management direction, reworking ECS requirements analysis to reflect the changes in requirements and traceability that have occurred since the IV&V preliminary report which was delivered in October 1994. Revised report due mid-July, 1995.
- Continued user, production, performance, and cost modeling analyses; also prepared and reviewed with Chris Daly a detailed approach for ongoing modeling analyses.
- Developed parts of a BONeS simulation model to study ECS disk-to-disk transfer.
- Attended the TSDIS Preliminary Design Review (PDR).
- Attended a number of key meetings including the ECS Monthly Review, MTPE requirements traceability meetings at GSFC, ECS modeling meetings at HAIS, EDOS modeling meetings at TRW, and the Science Software Integration and Testing (SSI&T) workshop at HAIS.

b) Issues/Concerns

- The delayed availability of a "final" version of the HAIS BONeS model is beginning to impact the level of analysis that can be performed on the model given our current schedule.
- Delayed availability of HAIS "baseline" RTM has delayed the submission of the IV&V IR-1 Requirements Analysis Report. (RTM data is currently projected to be available early to mid May.) Potential risks to Task 5 have been mitigated by reordering work being performed. However, further delays could impact current schedule.

c) Subcontractor Performance

- Subcontractor performance has been good.

d) Planned Activities

- Continue ECS requirements analysis.

- Continue ECS user, production, performance, and cost modeling analyses. Also, review statistical analysis and cost estimation tools to assist in evaluating the performance model results and custom software estimation methods.
- Receive ECS "baseline" RTM data from HAIS to support IR-1 Requirements Analysis.
- Determine, through discussions with ESDIS, the rationale used for describing requirements criticality ratings. This information is needed to support IV&V requirements analyses.
- Attend RTM training as well as the GSFC Space Applications of Artificial Intelligence and Emerging Information Technologies Workshop and Conference.
- Support program meetings and briefings as required.

2.3 Task # 6: ECS Development Analysis

a) Task Accomplishments

- Performed beta test on preliminary guidelines and evaluation forms/procedures for Object Oriented (OO) development analysis. Also, finalized these guidelines and evaluation forms/procedures.
- Began IR-1 and Release A design analysis with specific focus on SDPS.
- Outfitted the IV&V office space a HAIS. Established connectivity to HAIS development environment.
- Attended the initial TRMM PDR (on-going until June 1995).

b) Issues/Concerns

- None.

c) Subcontractor Performance

- Subcontractor performance has been excellent.

d) Planned Activities

- Issue first of a series of development analysis TAMs. The first will be on the SDPS, due May 31, 1995.
- Begin full-time occupancy of IV&V office space at HAIS by rotating Task 6 personnel on an ongoing basis.
- Support program meetings and briefings as required.

2.4 Task # 9: Key Interface Analysis

a) Task Accomplishments

- Populated the IADB and data dictionary with dataflow information from the 11 available IRDs. Also, started populating the IADB with information from supporting documents.
- As requested by ESDIS management, prepared a TAM for the TBDs found during IRD and ICD analysis. Also, prepared a draft TAM on the Data Item Description for ICDs in the ECS.
- Attended the TSDIS PDR and prepared RIDs.
- Attended the EDOS prototype SRR and prepared RIDs.
- Attended the ICWG, TRMM I&T, EOSDIS SIT meetings.

b) Issues/Concerns

- As previously noted, the schedule and content of the ICDs are a concern. The ESDIS Project is aware of this and has assigned a member of its management team to review the issue.
- Access to various EDOS documents needed for interface analysis has been somewhat limited. This situation was particularly troublesome this month while we were reviewing the EDOS SRR and generating RIDs.

c) Subcontractor Performance

- CTA is the task lead for this effort. Their performance has been very good.

d) Planned Activities

- Continue populating the IADB with dataflow information from supporting documents.
- Start writing the Technical Analysis Report (TAR) for the interfaces contained in IR-1.
- Attend the ICWG, TRMM I&T, and EOSDIS SIT meetings.
- Support other program meetings and briefings as required.

2.5 Task # 10: EOSDIS Integration and Certification Plan

a) Task Accomplishments

- Reworked task statement after discussing replan goals and objectives with SMO management.
- Reviewed test tool development needs for the task.
- Initiated the rework and update of the EOSDIS Integration and Certification Plan (EICP), now known as the EOSDIS Integration, Test, and Validation Plan (EITVP).

b) Issues/Concerns

- None.

c) Subcontractor Performance

- Subcontractor performance has been good, providing ongoing support for tool definition and planning.

d) Planned Activities

- Complete draft version of EITVP and deliver by May 15, 1995.
- Complete rework of task statement and plan next phase of activity.
- Support program briefings as required.

2.6 Task # 11: System Integration and Test (SI&T) Planning and Execution

a) Task Accomplishments

- Finalized task statement and reviewed with COTR.
- Developed detailed SI&T schedule, analyzing task interdependencies.
- Began SI&T schedule review to correct discrepancies and identify issues.

b) Issues/Concerns

- None.

c) Subcontractor Performance

- Subcontractor performance has been good, providing support on schedule planning and analysis activities.

d) Planned Activities

- Complete SI&T schedule review.
- Support DAAC "Roadshow" by providing I&T personnel cognizant of schedule and integration issues.
- Develop annotated outline of SI&T plan. Outline scheduled for delivery on June 1, 1995.
- Support program briefings as required.

2.7 Task # 12: EDOS IV&V

a) Task Accomplishments

- Attended the System Requirements Review (SRR) and Operational Prototype Requirements Review, generating 23 RIDs.
- Continued technical integrity evaluation of the EDOS Functional and Performance Requirements (F&PRs) and Functional and Performance Specifications (F&PSs).

- For the Operation Engineering Working Group (Oewg), supported activities to finalize the Operational Impact Item (OII) template and the RID tracking mechanism. Also, reviewed EDOS IRDs and noted interface issues.

- Reviewed a number of project-specific documents including the SRR briefing material, System Phaseover Plan, System Requirements Verification Matrix, and Risk Management Plan.

- Began reviewing the reworked TRW CUP study reports.

b) Issues/Concerns

- Access to the EDOS project server has still not been established by the Project office.

c) Subcontractor Performance

- No inputs from subcontractors for the month of April.

d) Planned Activities

- Begin reviewing Acceptance Test criteria and test planning material.

- Continue technical analysis of EDOS requirements and project database support.

- Support EDOS technical working groups and other V&V activities as required.

- Support program meetings/briefings as required.

2.8 Task # 13: IV&V Special Studies

a) Task Accomplishments

- Continued developing Version 0 test scenarios. Approximately 50 scenarios have been executed to date. We are now running V0 scenarios from the IV&V facility on Ivy Lane as well as the ULABSGI workstation in building 16W.

- Continued tracking the status of the V0 high resolution timestamp capability. Acquired a file of timestamp data and started reviewing format and content in order to develop a parser.

b) Issues/Concerns

- None.

c) Subcontractor Performance

- CTA is the lead for this new task. Their progress to date has been very good.

d) Planned Activities

- Coordinate with the DAACs to collect system utilization data using UNIX utilities. Begin performance characterization testing.
- Install X-Runner at the Intermetrics Greenbelt office when vendor delivers the executables in the requested 4mm format. (Recently received executables, but not on media that is compatible with existing peripherals.)
- Install X-Runner at the GSFC V0 DAAC after the system moves to the new SGI Challenge L machine.
- Support program meetings/briefings as required.

3. FINANCIAL/CONTRACTUAL INFORMATION

Section 3 of This Report

Has Been Removed

Due to Proprietary Content.